

REMARKS

This amendment is submitted in response to the Non-Final Office Action mailed March 18, 2008, in connection with the above-identified application (hereinafter, the "Office Action"). The Office Action provided a three-month shortened statutory period in which to respond, ending on June 18, 2008. Accordingly, this amendment is timely submitted.

I. Pending Claims

Claims 1-7, 9, 13, 49-51, of which claims 1 and 13 are independent, remain pending. New claims 52-53 are added. No new matter is presented in the newly presented claims. Claims 8, 10-12 and 14-48 have been canceled. Applicants reserve the right to pursue the canceled claims in a divisional or continuation application. Applicants do not acquiesce in the correctness of the rejections or objections in the Office Action and reserve the right to present specific arguments regarding any rejected or objected-to claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the claims in a subsequent patent application that claims priority to the instant application.

By this amendment, the features recited in dependent claim 8 have been incorporated into independent claims 1 and 13, thereby canceling claim 8.

Independent claim 1, as amended, is now drawn to an ex vivo method for up regulating runt-related transcription factor 3 (RUNX3) expression in a subject whereby an active agent is delivered to the immune cells of a subject that has a low activity or no activity of RUNX3 gene product. The active agent, in turn, induces in vitro expression or over-expression of RUNX3 in the immune cells of the subject. The in vitro-expressed or -over-expressed RUNX3 stem cells are administered back to the subject, thereby inhibiting the proliferation of T-cells in the subject. Support for the amendments is found in the entire specification, particularly at page 2, paragraphs [0020], page 7, paragraphs [0084]-[0088], Examples 1-6 and Figures 1-6, as well as canceled claim 8.

Independent claim 13, as amended, is now directed to an ex vivo method for reducing the proportion of mature dendritic cells versus immature dendritic cells in a subject by delivering an active agent to the immune cells of a subject that has a low activity or no activity of runt-related transcription 3 factor (RUNX3) gene product, wherein the active agent induces n vitro expression or over-expression of RUNX3 in the immune cells of the subject. The in vitro-

expressed or -over-expressed RUNX3 stem cells are administered back to the subject, whereby the proportion of mature dendritic cells versus immature dendritic cells in the subject is reduced. Support for this amendment is found throughout the entire specification, particularly at page 2, paragraph [0020], pages 6-7, paragraphs [0081-0088], and Examples 5-7, as well as canceled claim 8.

To correct a minor clerical error in claim 1, a comma (,) has been inserted in between the terms "gene product" and "wherein."

New dependent claims 52 and 53, both of which are dependent on claim 13, are added to further illustrate the claimed invention. New claim 52 recites that the "proportion of mature dendritic cells versus immature dendritic cells is determined by a reduction in the proportion of dendritic cells expressing CD80, CD86, MHC class II and OX40L." New claim 53 recites that the immune cells are derived from a subject with a T-cell mediated inflammation disorder that is selected from the group consisting of asthma, allergic asthma, Crohn's disease, and ulcerative colitis. Support for these amendments is found in the specification, particularly at page 2, paragraphs [0019-0021]; page 3, paragraph [0036]; page 6, paragraphs [0072]- [0078]; and page 7, paragraph [0085], as well as in the Examples and pending claims 5 and 9.

Applicants respectfully submit that the rejections based on lack of enablement is overcome in view of the amendments and arguments presented in the response herein. Applicants hereby request that all amendments be entered at this time and reconsideration of this application be made in view of the above amendments and the following remarks.

II. Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 1-9, 13 and 49-51 have been rejected under 35 U.S.C. §112, first paragraph, for failure to comply with the enablement requirement. In particular, the Office Action expressed concerns over the unpredictability and undeveloped state of the art with respect to the in vivo delivery of an active agent to the immune cells of a subject to induce expression or over-expression of RUNX3 in the immune cells of the subject thereby inhibiting T cell proliferation in vivo.

Without acquiescing to the correctness of this rejection, independent claims 1 and 13, as amended herein, are now directed to ex vivo methods for (1) up regulating RUNX3 expression in a subject (for amended claim 1) and (2)for reducing the proportion of mature dendritic cells

versus immature dendritic cells in a subject (for amended claim 13), respectively, via (a) the delivery of an active agent to an immune cell of the subject having low activity or no activity of RUNX3 gene product, wherein the active agent induces in vitro expression or over-expression of RUNX3 in the immune cells of the subject, and (b) by the administration of the in vitro-expressed or -over-expressed RUNX3 stem cells back to the subject, which would result to the inhibition the proliferation of T-cells (for amended claim 1) and to the reduction of the proportion of mature dendritic cells versus immature dendritic cells of the subject (for amended claim 13). As illustrated in the Examples and Figures 1-6, Applicants respectfully submit that amended claims 1 and 13, including the claims that depend therefrom (claims 2-7, 9, 49-51), and as well as new claims 52-53, are enabled.

Additionally, as shown in Examples 5 and 6, RUNX3 knock out mice exhibit higher levels of mature dendritic cells over immature dendritic cells, which, in turn, causes stimulation of T cell proliferation. Therefore, delivering an active agent comprising a polynucleotide encoding RUNX3 induces expression or overexpression of RUNX3 in the immune (dendritic) cells of the subject thereby inhibiting the proliferation of T cells and reducing the proportion of mature dendritic cells versus immature dendritic cells of the subject.

In light of the above amendments, Applicants have canceled claim 8, which recites that the delivery step is performed ex vivo.

Based on the foregoing and claim amendments, Applicants respectfully submit that the specification meets the enablement requirement for the instant claimed invention. A person skilled in the art would not need to undergo undue experimentation to practice the claimed invention without a reasonable expectation of success. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of the claims based on 35 U.S.C. §112, first paragraph.

CONCLUSION

For at least the reasons set forth above, this application is in condition for allowance. Favorable consideration and prompt allowance of the claims are earnestly requested. Should the Examiner have any questions that would facilitate further prosecution or allowance of this application, the Examiner is invited to contact the Applicant's representative designated below.

Respectfully submitted,

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